Cross-Reference Guide: Grade 8 Alberta Science with Project WILD and Below Zero *

J. van Kessel M.Sc., B.Ed.

Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
1. Describe the distribution and characteristics of water in local and global environments, and identify the significance of water supply and quality to the needs of humans and other living things	• describe, in general terms, the distribution of water in Alberta, Canada and the world; and interpret information about water characteristics *(e.g., identify glaciers, snow, polar icecaps, ground water and oceans as components of Earth's water; interpret graphical information on the availability of potable water)*	50 How Wet Is Our Planet? (m) 55 Aqua Words (m) 57 Water Wings (m) 161 Visual Vocabulary (m, aq) 168 Wetland Metaphors (m, e) 191 Where Does Water Go After School? (m) 283 The Glass Menagerie (m) 319 Deadly Skies (m, e1,3) 376 Watershed (m, e) 381 Alice in Waterland (m)	
	• recognize that fresh water and salt water contain varying amounts of dissolved materials, particulates and biological components; and interpret information on these component materials	109 Water Canaries (m) 283 The Glass Menagerie (m) 319 Deadly Skies (e1)	
	• identify major factors used in determining if water is potable, and describe and demonstrate tests of water quality *(e.g., investigate and describe the physical characteristics of a sample of water, such as clarity, salinity and hardness; investigate biological tests)*	109 Water Canaries (m)	
	• describe, in general terms, methods for generating fresh water from salt water, based on evaporation,		

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
	distillation and reverse osmosis		
2. Investigate and interpret linkages among landforms, water and climate	• describe the processes of erosion and deposition resulting from wave action and water flow, by: − identifying dissolved solids and sediment loads, and identifying sources and endpoints for these materials − describing how waves and tides are generated and how they interact with shorelines	135 Pond Succession (m) 376 Watershed (m)	
	• investigate and describe stream characteristics *(e.g., describe the slope, flow rate and stream profile characteristics of a model stream on a stream table)*	82 Wild Words ...A Journal-Making Activity 105 Riparian Retreat (m) 109 Water Canaries 135 Pond Succession (var) 319 Deadly Skies (e1) 354 Dragonfly Pond (e2) 376 Watershed (m)	151 An Ice Place To Be! (e2)
	• describe processes leading to the development of ocean basins and continental drainage systems *(e.g., describe the formation of geological features on the ocean floor, such as continental shelves and trenches)*		
	• identify evidence of glacial action, and analyze factors affecting the	50 How Wet is Our Planet? (m)	

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Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
	growth and attrition of glaciers and polar icecaps *(e.g., identify factors that affect the size of polar ice sheets and the Columbia Icefield)*		
	• describe the movement of ocean currents and its impact on regional climates (*e.g., effects of the Gulf Stream, Labrador Current, El Niño, La Niña*)	57 Water Wings (m, e1) 188 Rainfall and the Forest (m)	
3. Analyze factors affecting productivity and species distribution in marine and freshwater environments	• investigate life forms found in fresh water and salt water, and identify and interpret examples of adaptations to these environments *(e.g., describe and interpret examples of fish and invertebrate species found in a local freshwater environment)*	4 Animal Charades (m) 13 Interview a Spider (aq) 15 Grasshopper Gravity! (aq) 18 Wildlife is Everywhere! (m, aq) 20 Microtrek Scavenger Hunt (m, aq) 57 Water Wings (m) 62 Water Plant Art (e5) 64 Are You Me? (m) 72 Puddle Wonders! (m) 77 Whale of a Tail 82 Wild Words ...A Journal-Making Activity (m) 105 Riparian Retreat (e1,3) 109 Water Canaries (m) 115 Mythical Mystical Monsters (m) 118 Kelp Help (m) 127 Urban Nature Search (m, aq) 137 The Thicket Game (aq)	55 Fishy Deep Freeze (m) 65 It's A Gasp (m6) 83 Winter-Wise Insects (m, e) 93 A Furry Plant? (aq) 97 Snow Lovers or Haters? (m) 155 Mighty Migrators (m)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
		139 Adaptation Artistry (aq) 142 Seeing Is Believing or The Eyes Have It (m, aq) 147 Quick Frozen Critters (m, aq, var3) 161 Visual Vocabulary (m, aq) 165 Micro Odyssey (m) 184 Hooks and Ladders (m, e1) 195 Fishy Who's Who (m) 197 Fashion a Fish (m8, e) 280 Learning to Look, Looking to See (m, aq)	
	• analyze factors that contribute to the development of adaptations in species found in saltwater and freshwater environments	13 Interview a Spider (m, aq) 15 Grasshopper Gravity! (aq, e5) 109 Water Canaries (m) 137 The Thicket Game (m, aq) 139 Adaptation Artistry (m, aq) 147 Quick Frozen Critters (m, var3) 165 Micro Odyssey (m) 195 Fishy Who's Who (e2) 197 Fashion a Fish (m8, e) 310 Aquatic Times (m)	93 A Furry Plant? (m, aq)
	• investigate and interpret examples of seasonal, short-term and long-term change in populations of living things found in aquatic environments *(e.g., algal blooms, changes in local freshwater fish populations, cod and*	72 Puddle Wonders! (m) 82 Wild Words ...A Journal-Making Activity (m, e2) 109 Water Canaries (m) 135 Pond Succession (m) 206 Oh Deer! (m aq, eval3)	55 Fishy Deep Freeze (m) 65 It's A Gasp

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
	salmon stock depletion)	232 Net Gain, Net Effect (m, e3) 245 Where Have All the Salmon Gone? 262 Watered Down History (m) 310 Aquatic Times (m) 312 To Dam or Not to Dam (e3)	
	• analyze relationships between water quality and living things, and infer the quality of water based on the diversity of life supported by it	62 Water Plant Art (m, e3,4,5) 98 Environmental Barometer (aq) **109 Water Canaries** 165 Micro Odyssey (m) 177 The Edge of Home (e3) 188 Rainfall and the Forest (m, e) 283 The Glass Menagerie (m) 319 Deadly Skies (e1) 322 Deadly Waters (m,e) 354 Dragonfly Pond (e1,2)	
4. Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues	• analyze human water uses, and identify the nature and scope of impacts resulting from different uses *(e.g., identify pollutants in ground water and surface water systems resulting from domestic and industrial use; analyze the effects of agriculture and forestry practices on stream flow and water quality)*	48 Litter We Know (m, aq) 50 How Wet Is Our Planet? (e2) 57 Water Wings (m, e2) 98 Environmental Barometer (m) 105 Riparian Retreat (e2) **109 Water Canaries (e)** 127 Urban Nature Search (m, e) 180 Blue Ribbon Niche (m) 184 Hooks and Ladders (e5,6,7) 191 Where Does Water Go After School? (e3) 195 Fishy Who's Who (m, e6)	65 It's A Gasp (e) 137 Snowmobile Savvy (aq) 141 Shocking Snow1 (e) 145 The Acid Test (m) 155 Mighty Migrators (m, e1)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
		216 Here Today, Gone Tomorrow (aq) 230 No Water Off a Duck's Back (aq) 252 Lobster in Your Lunch Box (e4, aq) 262 Watered Down History (m) 276 Water We Eating? (e1,2) 283 The Glass Menagerie 289 Shrinking Habitat (aq) 293 Migration Barriers (e1, aq) 295 To Compromise or Not to Compromise (m, e1) 299 Deadly Links (e1-4) 306 Planning for People and Wildlife (m, aq) 310 Aquatic Times (m) **312 To Dam or Not to Dam (e)** 319 Deadly Skies (e1) 322 Deadly Waters (m,e) 330 Playing Lightly on the Earth (e) 332 Water's Going On? (e) 335 What Did Your Lunch Cost Wildlife? (m,aq) 337 Flip the Switch for Wildlife! (m) 363 Turtle Hurdles (m) 368 Plastic Jellyfish 371 Something's Fishy Here! (e1,4) 376 Watershed (m, e3,4) 381 Alice in Waterland (m)	

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
	• identify current practices and technologies that affect water quality, evaluate environmental costs and benefits, and identify and evaluate alternatives *(e.g., research and analyze alternatives for ensuring safe supplies of potable water; research, analyze and debate alternatives for a specific water quality issue, such as the location and design of a landfill, the protection of a natural waterway, the use of secondary and tertiary wastewater treatment, the salinization of soils due to irrigation, the eutrophication of ponds and streams due to excess use of phosphates in fertilizers and detergents, or a proposal to export water resources)*	50 How Wet Is Our Planet? (e2) 98 Environmental Barometer (m) 109 Water Canaries (e) 180 Blue Ribbon Niche (m) 184 Hooks and Ladders (e5,6,7) 191 Where Does Water Go After School? (e3) 195 Fishy Who's Who (m, e6) 216 Here Today, Gone Tomorrow (aq) 230 No Water Off a Duck's Back (m, aq) 252 Lobster in Your Lunch Box (m, e4, aq) 262 Watered Down History (m) 272 The Power of Song (m, aq) 276 Water We Eating? (m, e1,2) **283 The Glass Menagerie (e)** 289 Shrinking Habitat (aq) 293 Migration Barriers (m, e1, aq) 295 To Compromise or Not to Compromise (m, e1) **299 Deadly Links (e1-4)** 306 Planning for People and Wildlife (m, aq) 310 Aquatic Times (m) **312 To Dam or Not to Dam (e)** 319 Deadly Skies (e1) 322 Deadly Waters (m,e)	65 It's A Gasp (m, e) 137 Snowmobile Savvy (var2, aq) 141 Shocking Snow1 (e)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
		328 Ethi-Thinking (m, aq) 332 Water's Going On? (e) 335 What Did Your Lunch Cost Wildlife? (m,aq) 337 Flip the Switch for Wildlife! (aq) 354 Dragonfly Pond (e1) 368 Plastic Jellyfish (m) 371 Something's Fishy Here! (e4) 376 Watershed (m3,4) 381 Alice in Waterland (e3)	
	• illustrate the role of scientific research in monitoring environments and supporting development of appropriate environmental technologies *(e.g., describe a local example of aquatic monitoring, and describe how this research contributes to watershed management)*	72 Puddle Wonders! (e3) 77 Whale of a Tail (m, e2) 109 Water Canaries (m) 184 Hooks and Ladders (e5,6) 195 Fishy Who's Who (e5) 204 Wildwork (m, aq) 216 Here Today, Gone Tomorrow (e1) 295 To Compromise or Not to Compromise (m, e1,4) 299 Deadly Links (e3) 312 To Dam or Not to Dam (m) 360 Living Research: Aquatic Heros and Heroines (m) 381 Alice in Waterland (m)	
	• provide examples of problems that cannot be solved using scientific and technological knowledge alone *(e.g.,*	48 Litter We Know (m, aq) 50 How Wet Is Our Planet? (e2) 55 Aqua Words (m)	65 It's A Gasp (e) 137 Snowmobile Savvy (var2, aq) 141 Shocking Snow1 (e)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Outcomes for Science, Technology and Society (STS) and Knowledge	**Specific Learner Expectations**		
	the need to prevent pollutants from entering aquatic environments, the need to avoid damage from ice sheets and icebergs)	82 Wild Words ...A Journal-Making Activity (m) 98 Environmental Barometer (m) 105 Riparian Retreat (m, e2) 109 Water Canaries (e4) 177 The Edge of Home (e3) 180 Blue Ribbon Niche (m9) 216 Here Today, Gone Tomorrow (e6, aq2) 230 No Water Off a Duck's Back (m) 289 Shrinking Habitat (aq) 295 To Compromise or Not to Compromise (m, e1,4) 299 Deadly Links (e1-4) 306 Planning for People and Wildlife 310 Aquatic Times (m) 312 To Dam or Not to Dam (m) 319 Deadly Skies (e) 322 Deadly Waters (m,e) 328 Ethi-Thinking (m, aq) 330 Playing Lightly on the Earth (e) 332 Water's Going On? (e) 354 Dragonfly Pond (e1)	155 Mighty Migrators (m, e1)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
Initiating and Planning Ask questions about the relationships between and among observable variables, and plan investigations to address those questions	• identify science-related issues and problems	180 Blue Ribbon Niche (m9) 195 Fishy Who's Who (e6) 232 Net Gain, Net Effect (m, e5) 257 Changing Attitudes (m, e2) 272 The Power of Song (m, e1) 295 To Compromise or Not to Compromise (m, e1) To Dam or Not to Dam 330 Playing Lightly on the Earth (m, e) 345 Can Do! (m, aq) 348 Improving Wildlife Habitat in the Community (m, aq) 354 Dragonfly Pond (m)	
	• identify questions to investigate, arising from science-related issues	13 Interview a Spider (m, aq) 232 Net Gain, Net Effect (m, e5) 257 Changing Attitudes (m)	
	• select appropriate methods and tools for collecting relevant data and information *(e.g., plan and conduct a search, using a wide variety of electronic sources)*	191 Where Does Water Go After School? (m2) 354 Dragonfly Pond (m)	
	• design an experiment, and identify the major variables *(e.g., design an experiment to compare the characteristics of two water samples)*		151 An Ice Place To Be! (e2)
Performing and Recording Conduct investigations into the	• research information relevant to a given issue	77 Whale of a Tail 118 Kelp Help (m) 180 Blue Ribbon Niche (m9, e2)	65 It's A Gasp (e) 137 Snowmobile Savvy (var2, aq) 151 An Ice Place To Be! (e2)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
relationships between and among observations, and gather and record qualitative and quantitative data		184 Hooks and Ladders (e5,6,7) 188 Rainfall and the Forest (m) 195 Fishy Who's Who 216 Here Today, Gone Tomorrow (e1,2,6, aq2) 232 Net Gain, Net Effect (m, e5) 257 Changing Attitudes (m) 262 Watered Down History (m) 295 To Compromise or Not to Compromise (m, e1) 299 Deadly Links (e4) 310 Aquatic Times 312 To Dam or Not to Dam (e) 316 Facts and Falsehoods (m) 335 What Did Your Lunch Cost Wildlife? (m,aq) 345 Can Do! (m, aq) 354 Dragonfly Pond (e) 368 Plastic Jellyfish (e5)	
	• select and integrate information from various print and electronic sources or from several parts of the same source *(e.g., summarize information on a river basin)*	115 Mythical Mystical Monsters (m) 118 Kelp Help (m) 165 Micro Odyssey (m) 180 Blue Ribbon Niche (m9, e2) 184 Hooks and Ladders (e5,6,7) 188 Rainfall and the Forest 195 Fishy Who's Who 216 Here Today, Gone Tomorrow (e1) 232 Net Gain, Net Effect (m, e5) 262 Watered Down History (m) 268 Cartoons and Bumper Stickers	

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
		(m, e1, aq) 272 The Power of Song (m, aq) 299 Deadly Links (e4) 310 Aquatic Times (m) 312 To Dam or Not to Dam (e) 316 Facts and Falsehoods (m) 354 Dragonfly Pond (e3-7)	
	• identify strengths and weaknesses of different methods of collecting and displaying data *(e.g., identify strengths and weaknesses of technologies used to monitor and map changes in stream flow)*	245 Where Have All the Salmon Gone? (e1) 316 Facts and Falsehoods (m)	
Analyzing and Interpreting Analyze qualitative and quantitative data, and develop and assess possible explanations	• apply given criteria for evaluating evidence and sources of information *(e.g., assess the authenticity and reliability of electronic sources)*	115 Mythical Mystical Monsters (m) 195 Fishy Who's Who 268 Cartoons and Bumper Stickers (m) 270 Does Wildlife Sell Cigarettes? (m) **316 Facts and Falsehoods**	
	• predict the value of a variable, by interpolating or extrapolating from graphical data *(e.g., predict future stocks of fish based on long-term data)*	206 Oh Deer! (m, eval3) 245 Where Have All the Salmon Gone?	
	• interpret patterns and trends in data, and infer and explain relationships among the variables *(e.g., relate climates to proximity to*	98 Environmental Barometer (aq) 109 Water Canaries (e) 188 Rainfall and the Forest (aq) 191 Where Does Water Go After	65 It's A Gasp (m5,6)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
	oceans and to the characteristics of ocean currents)	School? (m) 206 Oh Deer! (m, eval3) 232 Net Gain, Net Effect (m) 245 Where Have All the Salmon Gone? 283 The Glass Menagerie (m) 293 Migration Barriers (m, aq) 319 Deadly Skies (e) 322 Deadly Waters	
	• identify new questions and problems arising from what was learned *(e.g., identify questions, such as: "Can ocean currents be modified?", "Is kelp a viable source of food?", "How would icecap melting change Canadian coastlines?")*	82 Wild Words ...A Journal-Making Activity (m) 257 Changing Attitudes (e2) 345 Can Do! (m8, aq) 354 Dragonfly Pond (m, e1)	
Communication and Teamwork Work collaboratively on problems; and use appropriate language and formats to communicate ideas, procedures and results	• use appropriate vocabulary, including correct science and technology terminology, to communicate ideas, procedures and results *(e.g., use such terms as salinity, currents and basins when describing oceans and their characteristics)*	109 Water Canaries 161 Visual Vocabulary (m, aq) 216 Here Today, Gone Tomorrow (aq) 283 The Glass Menagerie (m) 310 Aquatic Times (m) 348 Improving Wildlife Habitat in the Community (m, aq)	
	• communicate questions, ideas, intentions, plans and results, using lists, notes in point form, sentences, data tables, graphs, drawings, oral language and other means *(e.g.,*	13 Interview a Spider (aq) 50 How Wet Is Our Planet? (e1) 55 Aqua Words 57 Water Wings 62 Water Plant Art	137 Snowmobile Savvy (aq) 155 Mighty Migrators (m)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
	create a concept map, linking the different stages of the water cycle; prepare a multimedia presentation on changing climatic conditions and the effects on glaciers, ice sheets and water levels, incorporating graphics, audio, visuals and text gathered from remote sources)	64 Are You Me? (m) 72 Puddle Wonders! 82 Wild Words ...A Journal-Making Activity 85 Animal Poetry (m) 109 Water Canaries 115 Mythical Mystical Monsters (m) 118 Kelp Help 161 Visual Vocabulary (m, aq) 165 Micro Odyssey (m4) 195 Fishy Who's Who 216 Here Today, Gone Tomorrow (e6, aq) 230 No Water Off a Duck's Back (m5) 245 Where Have All the Salmon Gone? (e2) 257 Changing Attitudes 272 The Power of Song (m, e1) 283 The Glass Menagerie 293 Migration Barriers (m, aq) 306 Planning for People and Wildlife 319 Deadly Skies (e) 322 Deadly Waters (m,e) 332 Water's Going On? 348 Improving Wildlife Habitat in the Community (aq) 354 Dragonfly Pond	
	• evaluate individual and group processes used in planning, problem solving, decision making and	191 Where Does Water Go After School? (m2)	

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Skill Outcomes	**Specific Learner Expectations**		
	completing a task *(e.g., discuss advantages and disadvantages of different research methods and sources used to gather information on an ocean basin)*		
	• defend a given position on an issue, based on their findings	216 Here Today, Gone Tomorrow (e6, aq2) 295 To Compromise or Not to Compromise (m, e1) 306 Planning for People and Wildlife (m, aq) 310 Aquatic Times (m) 312 To Dam or Not to Dam 340 Ethi-Reasoning (m, aq) 354 Dragonfly Pond (m, e) 371 Something's Fishy Here! (m, e2,3)	137 Snowmobile Savvy (aq)

Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Attitude Outcomes	**Specific Learner Expectations**		
Interest in Science	Show interest in science-related questions and issues, and pursue personal interests and career possibilities within science-related	18 Wildlife is Everywhere! (aq) 20 Microtrek Scavenger Hunt (aq) 82 Wild Words ...A Journal-Making Activity	151 An Ice Place To Be! (e2)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Attitude Outcomes	**Specific Learner Expectations**		
	fields *(e.g., express interest in conducting scientific investigations of their own design; take an interest in media reports on environmental issues, and seek out further information from a variety of sources; take an interest in observing and interpreting their environment during personal and group excursions)*	98 Environmental Barometer (aq) 105 Riparian Retreat (e1) 109 Water Canaries 127 Urban Nature Search (aq) 177 The Edge of Home (e3) 180 Blue Ribbon Niche 184 Hooks and Ladders (e) 204 Wildwork (aq) 216 Here Today, Gone Tomorrow (e1,2,6) 230 No Water Off a Duck's Back (aq) 252 Lobster in Your Lunch Box (e5, aq) 257 Changing Attitudes 310 Aquatic Times (m) 345 Can Do! (m, aq) 348 Improving Wildlife Habitat in the Community (aq)	
Mutual Respect	Appreciate that scientific understanding evolves from the interaction of ideas involving people with different views and backgrounds *(e.g., show awareness of and respect for the contributions of indigenous peoples to knowledge of the environment)*	115 Mythical Mystical Monsters (e2) 184 Hooks and Ladders (e5-8) 195 Fishy Who's Who (m, e5) 204 Wildwork (m, aq) 257 Changing Attitudes (m, e) 306 Planning for People and Wildlife 360 Living Research: Aquatic Heros and Heroines	
Scientific Inquiry	Seek and apply evidence when evaluating alternative approaches to investigations, problems and issues *(e.g., seek data that is accurate and*	109 Water Canaries (m) 191 Where Does Water Go After School? (m2) 195 Fishy Who's Who	137 Snowmobile Savvy(aq)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Attitude Outcomes	**Specific Learner Expectations**		
	based on appropriate methods of investigation; consider observations and ideas from a number of sources before drawing conclusions)	316 Facts and Falsehoods (m) 345 Can Do! (m, aq) 354 Dragonfly Pond (e)	
Collaboration	Work collaboratively in carrying out investigations and in generating and evaluating ideas *(e.g., share observations and ideas with other members of a group, and consider alternative ideas suggested by other group members; share the responsibility for carrying out decisions)*	13 Interview a Spider (m, aq) 109 Water Canaries 168 Wetland Metaphors 180 Blue Ribbon Niche (m) 283 The Glass Menagerie 293 Migration Barriers (m, aq) 306 Planning for People and Wildlife 345 Can Do! (aq) 354 Dragonfly Pond (e)	155 Mighty Migrators (m)
Stewardship	Demonstrate sensitivity and responsibility in pursuing a balance between the needs of humans and a sustainable environment *(e.g., consider immediate and long-term consequences of personal and group actions; objectively identify potential conflicts between responding to human wants and needs and protecting the environment)*	15 Grasshopper Gravity! (aq, e6) 48 Litter We Know (m, aq) 50 How Wet Is Our Planet? (e2) 55 Aqua Words (m) 82 Wild Words ...A Journal-Making Activity 105 Riparian Retreat (e2) 109 Water Canaries (e4) 177 The Edge of Home (e3) 180 Blue Ribbon Niche (m9, e2) 184 Hooks and Ladders (e5,6,7) 216 Here Today, Gone Tomorrow (e1,2) 230 No Water Off a Duck's Back (aq) 232 Net Gain, Net Effect (m, e5,7,8,9) 242 Aquatic Roots (m)	137 Snowmobile Savvy(aq) 141 Shocking Snow1 (e) 155 Mighty Migrators (m)

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Attitude Outcomes	**Specific Learner Expectations**		
		252 Lobster in Your Lunch Box (e4, aq) 257 Changing Attitudes (m, e1,2) 262 Watered Down History (e1) 268 Cartoons and Bumper Stickers (m, e1, aq) 270 Does Wildlife Sell Cigarettes? (m, e3) 283 The Glass Menagerie (m) 289 Shrinking Habitat (aq) 293 Migration Barriers (m, aq) 295 To Compromise or Not to Compromise (m, e1) 299 Deadly Links (e1-4) 306 Planning for People and Wildlife 312 To Dam or Not to Dam 319 Deadly Skies (e) 322 Deadly Waters (m,e) 328 Ethi-Thinking (m, aq) 330 Playing Lightly on the Earth (e) 332 Water's Going On? (e) 335 What Did Your Lunch Cost Wildlife? (m,aq) 337 Flip the Switch for Wildlife! (aq) 345 Can Do! (aq) 348 Improving Wildlife Habitat in the Community (e, aq) 354 Dragonfly Pond (e) 351 Enviro-Ethics (aq) 360 Living Research: Aquatic Heros and Heroines (m, e1)	

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Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)		**Project Wild***	**Below Zero***
Attitude Outcomes	**Specific Learner Expectations**		
		363 Turtle Hurdles (m) 368 Plastic Jellyfish 371 Something's Fishy Here! (m, e4) 381 Alice in Waterland (m)	
Safety	Show concern for safety in planning, carrying out and reviewing activities *(e.g., select safe methods and tools for collecting evidence and solving problems; readily alter a procedure to ensure the safety of members of the group)*	109 Water Canaries 180 Blue Ribbon Niche 345 Can Do! (m, aq)	145 The Acid Test 151 An Ice Place To Be! (e2)

*** End Notes** (for all tables)

bold - very strong correlation of activity with outcome/expectation

m - minor modification required for SLE

\# - relevant step in activity procedure

e - include extension activity

aq - aquatic extension

eval - evaluation section of activity

var - variation section of activity